

### **REMARKS / ARGUMENTS**

The present application includes pending claims 1-36, all of which have been rejected. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-2, 10-14, 22-26, and 34-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US 5,740,526 ("Bonta") in view of US 7,324,783 ("Anderson") and US 7,253,779 ("Greer"). Claims 3-9, 15-21, and 27-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonta, Anderson, and Greer, and further in view of US 5,465,410 ("Hiben").

The Applicant respectfully traverses these rejections at least based on the following remarks.

### **REJECTION UNDER 35 U.S.C. § 103**

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there

must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art” (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

**I. The Proposed Combination of Bonta, Anderson, and Greer Does Not Render Claims 1-2, 10-14, 22-26, and 34-36 Unpatentable**

The Applicant first turns to the rejection of claims 1-2, 10-14, 22-26, and 34-36 as being unpatentable over Bonta in view of Anderson and Greer.

**A. Independent Claims 1, 13, and 25**

With regard to the rejection of independent claim 1 under 35 U.S.C. §

103(a), the Applicant submits that the combination of Bonta, Anderson, and Greer does not disclose or suggest at least the limitation of “selecting at least one of said plurality of signal paths for receiving a signal, wherein said selecting is based on at least one of the modified signal quality metrics,” as recited by the Applicant in independent claim 1.

The Office Action states the following:

Referring to Claim 1, Bonta teaches a method for choosing at least one signal path, the method comprising:

Determining a signal quality metric for each of a plurality of signal paths (see col. 2, lines 53-57); and

Selecting at least one of said plurality of signal paths for receiving a signal, wherein said selecting is based on the at least one of the signal quality metric (see col. 2, line 62 to col. 3, line 4).

Bonta does not teach modifying the determined signal quality metric for a signal path. Anderson teaches modifying the determined signal quality metric for a signal path (see col. 7, lines 29-46 noting that this process can be applied to all antenna elements of Bonta). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Anderson to said device of Bonta in order to provide a more accurate method of measuring signal quality in order to ensure the best quality signal.

**The combination of Bonta and Anderson does not teach selecting at least one of said plurality of signal paths for receiving a signal, wherein said selecting is based on at least one of the modified signal quality metrics. Greer teaches selecting at least one of said plurality of signal paths for receiving a signal, wherein said selecting is based on at least one of the modified signal quality metrics (see col. 12, line 59 to col. 13, line 10).** Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Greer to the modified device of Bonta and

Anderson in order to improve performance when multi antennas are used.

See Office Action at pages 2-3 (emphasis added). The Examiner concedes Bonta and Anderson do not disclose the above limitation, and then relies for support on col. 12, line 59 – col. 13, line 10 of Greer.

Greer discloses an antenna system that uses a plurality of antennas designed and oriented to provide radiation pattern, signal polarization and/or spatial diversity. The various diversity operational characteristics are achieved by using similar antennas physically oriented to provide the diversity attributes or by using dissimilar antennas. In addition, the operative antenna is selected to maximize (or minimize) a selected signal quality metric of a received signal. See *Greer* at col. 13, lines 8-10. More specifically, referring to Fig. 3 of Greer, the control circuitry 22 determines a signal performance metric for the received signal using each of the antennas 70 and 76. The antenna providing the better metric value for the received signal is then selected. See *id.* at col. 9, lines 50-56. In this regard, Greer simply selects an antenna based on a determined signal performance metric (e.g., signal power or signal-to-noise ratio; See *id.* at col. 3, ll. 54-56), and does not perform any selection of a signal path based on a modified signal quality metric. In fact, Greer does not even disclose any modifying to a signal quality metric of a received signal, let alone selection of a signal path based on such modified signal quality metric.

Therefore, the Applicant maintains that the combination of Bonta, Anderson, and Greer does not disclose or suggest at least the limitation of “selecting at least one of said plurality of signal paths for receiving a signal, wherein said selecting is based on at least one of the modified signal quality metrics,” as recited by the Applicant in independent claim 1.

The Applicant also respectfully draw the attention of the Examiner to the prohibitions as set forth in M.P.E.P. § 2143.01, which states that “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious.” See M.P.E.P. § 2143.01. Regardless of what Anderson allegedly teaches, Anderson and Greer cannot modify Bonta to use modified signal quality metric as this would present a radical change or an extreme departure from the principle operation of Bonta. More specifically, Bonta uses original and unmodified signal quality metrics from two antennas, where the difference of the two measured quality metrics is compared to a threshold for purposes of determining whether or not to use a third signal quality metric. If, *arguendo*, Bonta is to use modified signal quality metric, this would result in a deviation of the difference between the two metrics and incorrect application of the threshold value (note that the threshold value is set for use with regard to originally measured and unmodified signal quality metrics). This will also lead to incorrect determination of whether or not to use the third signal quality

metric. For at least these reasons, the proposed modification of Bonta is prohibited and the obviousness rejection cannot be maintained.

Accordingly, the proposed combination of Bonta, Anderson, and Greer does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 13 and 25 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 13 and 25 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

**B. Rejection of Dependent Claims 2, 10-12, 14, 22-24, 26, and 34-36**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 13, and 25 under 35 U.S.C. § 103(a) has been overcome and request that the rejection be withdrawn. Additionally, claims 2, 10-12, 14, 22-24, 26, and 34-36 depend from independent claims 1, 13, and 25 and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2, 10-12, 14, 22-24, 26, and 34-36.

**II. Rejection of Dependent Claims 3-9, 15-21, and 27-33**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 13, and 25 under 35 U.S.C. § 103(a) has been overcome and request that the rejection be withdrawn. Additionally, since the additional cited reference (Hiben) does not overcome the deficiencies of Bonta, Anderson, and Greer, claims 3-9, 15-21, and 27-33 depend from independent claims 1, 13, and 25, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 3-9, 15-21, and 27-33.

**CONCLUSION**

Based on at least the foregoing, the Applicant believes that all claims 1-36 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and request that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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